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ABSTRACT

This document contains three papers from a symposium on human resource development (HRD) and employee outcomes that was conducted as part of a HRD conference. "The Impact of Participating in Human Resource Development Activities on Individuals' Job Level and Income" (Tim de Jong, Bob Witziers, Martin Mulder) presents the results of a linear regression analysis of data collected from a sample of 1,957 respondents, which showed that participating in HRD activities has a significant but modest impact on individuals' job level and a significant but very small impact on their income. "The Relationship between Training and Organizational Commitment in the Health Care Field" (Kenneth R. Bartlett) discusses a study of a sample of 337 registered nurses from 5 hospitals that demonstrated that the nurses' perceived access to training, social support for training, motivation to learn, and perceived benefits of training are positively correlated to organizational commitment. "The Role of HRD in Promoting Job Satisfaction in Malaysian SMEs [Small and Medium Enterprises]" (Robert W. Rowden, Shamsuddin Ahmad) reports on a study of the nature and extent of HRD and level of job satisfaction among workers in Malaysian SMEs and established a correlation between workplace learning and job satisfaction. The papers contain reference sections. (MN)

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HRD and Employee Outcomes

Symposium 42

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de Jong/Bartlett/
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March 8 - 12, 2000

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The Impact of Participating in Human Resource Development Activities on Individuals' Job Level and Income

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This paper addresses the question as to whether individuals benefit from participating in HRD activities. In particular, the question is addressed whether participating in these activities lead to a higher job level and/or higher income. The results, obtained through means of a linear regression analysis and based on a sample of 1957 respondents, show that participating in HRD activities has a significant but modest impact on individuals' job level. In fact, HRD activities are the secondly most explaining group of variables with regard to the variance in job level. Subsequently, participation in HRD activities has also a significant, but very small impact on individuals'income. Other variables included in the analysis, such as gender, level of initial qualification, work experience, and job level explain far more of the variance in income.

Keywords: Training Benefits, Job Level, Income

Education in our modern society seems to be more and more a prerequisite to obtain attractive jobs with high incomes. It is said that a successful career is a result of initial education (Becker, 1975; Boon, 1993; Meesters, 1992; Peschar & Wesselingh, 1995; Oosterbeek, 1992; Thijssen, 1995; Tuijnman, 1993). Especially from the educational level great benefits can be expected further in one's career. The long tradition of research into the relationship between educational level and income confirms this repeatedly.

Basis for this notion lies in the Human Capital theory developed by Becker (1975). In this theory students are thought to be investors, making a choice between spending time on income-generating activities and spending time on educational activities. In line with micro-economic thought, it is assumed that the income received as a result of time spent in education is the benefit the student strives to maximize in order to maximize his utility. The main focus of studies using this framework has been to determine the actual returns of education to the individual.

In the Netherlands an important contribution is delivered by Glebbeek (1993), who has developed and studied a model for estimating effects of initial education on career development. He has found that education has a direct influence on income (.35), and an indirect influence via jobs persons held in the past (.71), jobs they hold later in their career (.45), and management functions they hold (.32). The magnitude of this indirect influence on income is .15. Peschar & Wesselingh (1995) conclude that this means that persons with the same jobs have different incomes according to the differences in their educational history. They state that this is according to the human capital theory that states that more education always pays.

The most recent development in this field is summarized by McMahon (1997). In this review he states that researchers over the last years have attempted to arrive at a comprehensive estimate of the current total returns to education as objective as possible, that is, to estimate these returns without overestimation or underestimation. As a result, economists have more than ever been able to detect the true effect of education on earnings. Moreover, these results show that some of the returns to education may have been seriously underestimated in the past.

But what can be said of the returns of HRD activities? Do they also pay off? We know that because of many economic, social and technological developments production and services processes change rapidly and that work becomes more and more complex (Barham & Rassam, 1989; Bergenhenegouwen et al., 1995; Bomers, 1990; Diedrich, 1988; Dixon, 1992; Tjepkema, 1995; Tuijnman & Van der Kamp, 1995). Over time the value of initial qualifications decreases and the individual's employability can only be guaranteed by additional HRD activities. So there is a need to permanently invest in HRD activities after individuals have entered the labor market.

Mincer (1979, 1989) has built on this idea by stating that individuals, after they have finished their initial education and have entered the labor market, guarantee their employability by continuously investing in HRD activities. Moreover, his theory predicts that these activities increase their human capital, which in turn leads to a

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higher income on the labor market. This notion is supported by several studies investigating the effects of participating in corporate training. For instance, a study conducted by Groot (1994) in the Netherlands showed that participants of corporate training earn 11% more than non-participating members of the work force. Similar results were found in studies conducted by Barron, Black & Loewenstein (1989), Holzer (1988) and Mincer (1989). However, other results can be found in studies conducted by Boon (1993) and Tuijnman (1989). These studies found that HRD activities had no impact at all.

This paper builds on the notion developed by Mincer by exploring the effect of HRD activities on the income of higher educated professionals. In this paper HRD activities are considered as any post-initial training activities that are aimed at improving the personal employability or at developing oneself personally. More operationally, HRD activities are defined as all types of training activities that range from short but thorough management or communication training activities, follow-up language courses or software training modules, more specialistic corporate training development programs, to extensive, formalized post academic studies or Masters of Science programmes. All respondents were explicitly asked to refer to these types of HRD activities only.

The relationship between HRD activities and income is difficult to study, as there are many variables related to the distribution of income. Work experience is one important example (Cohn & Geske, 1990), in particular since it can act as a substitute for training and education. Moreover, research has shown that there are gender differences and differences between workers in different economic sectors: ceteris paribus women end up in less managerial positions and earn less too, while workers in the profit sector earn more than workers in the non-profit sector (Meesters, 1992). Given these other factors affecting income, the general research question we try to answer is:

Do Human Resource Development activities affect future job level and income of higher educated professionals?

Subquestions are:

- *Is there any relationship between Human Resource Development activities on the one side and job level and income of higher educated professionals on the other side?*
- *How strong is this relationship?*
- *How can this relationship be seen in comparison to the effect of other variables such as gender, initial education, work experience, job level and labor market?*

Methodology

Conceptual Framework

Based on the literature described above the following exploratory model was developed to study the research question at hand:

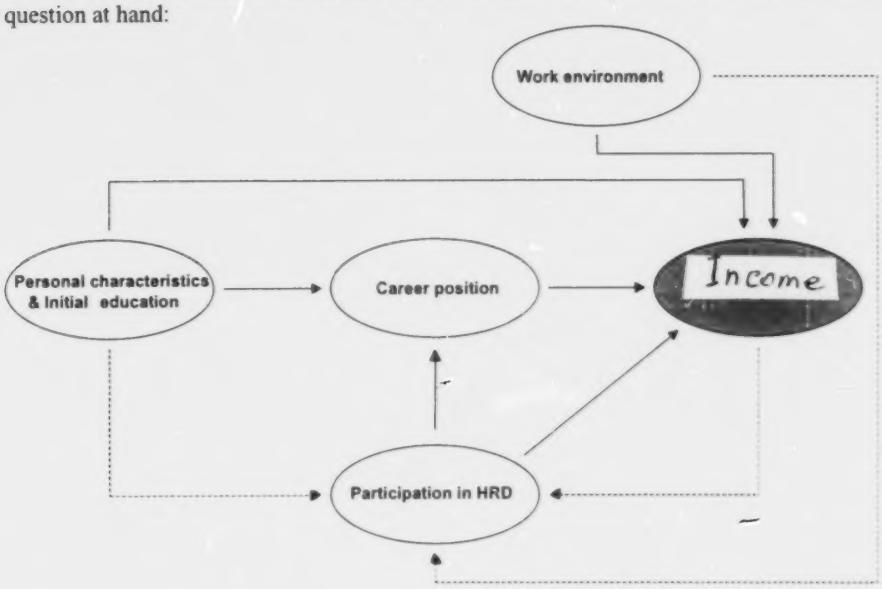

Figure 1
Exploratory model of the relationship between participating in HRD activities on the one side and job level and income of higher educated professionals on the other side

Firstly, this model proposes that personal characteristics (such as gender, work experience and career expectations) and initial education (especially educational level but also field) affect individuals' career position, income and participation in HRD activities. Secondly, it proposes that participation in HRD activities affect individuals' career position and their income directly. Thirdly, it assumes that participation in HRD activities affects income indirectly by promoting their career position. Finally, the model takes into account that income and participation in HRD activities are a function of environmental factors such as the economic sector of the organization and the size of the organization.

As can be seen, the exploratory model has been limited slightly. Only the relationships marked with solid arrows have been tested in the model mentioned above. The relationships with dashed arrows have been left out of consideration.

Operationalization

To test the exploratory model a questionnaire has been develop. The resulting questionnaire comprises 59 questions in the following categories: 1. General questions, 2. Highest initial education, 3. Start on the labor market, 4. Career history, 5. Present situation, 6. Career intentions, 7. Additional training history, 8. Most important additional training program, and 9. Plans for further participation in training.

These categories all reflect relevant issues in the literature concerning individuals' career development and are directly related to the variables in the exploratory model. More specifically, the following variables are selected:

Personal characteristics

- Gender (0=female, 1=male);

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- Social background (0=parents without any vocational college or university degree, 1=parents with a vocational college certificate or university degree);
- Number of years of work experience (#);
- Received a higher qualification of a regular educational institution (0=no, 1=yes);
- Career ambition (5 items).

Initial education
- Level of initial education (0=vocational college; 1=university);
- Field of initial education (0=with very good prospects on labor market, 1=with less good prospects on labor market);
- Perceived quality of initial education (11 items).

Participation in HRD
- Total time (in working weeks) spent on short training programs per year (#);
- Total time (in working weeks) spent on long training programs per year (#);
- Nature of most important training program (0=specialization/updating, 1=retraining);
- Individual's goal of most important training program (0=personal development, 1=career development);
- Total time (in working weeks) spent on most important training program (#);
- Certification of most important training program (0=no, 1=yes);
- Perceived career effect of most important training program (8 items);
- Perceived personal value of most important training program (7 items).

Career position
- Job level (5 categories).

Work environment
- Economic sector of the organization (0= profit, 1=non-profit).
- Size of the organization (number of employees);
- Organizational training facilities (0=no, 1=yes).

Income
- Gross earnings per annum (corrected for size of the job i.e. the number of hours an individual works per week; 20 categories).

The meaning of most variables is clear, except (may be) the variables perceived quality of the initial education, perceived personal value and career effect of the most important training program, and a person's career ambition. The first variable measures the contribution of the initial education to finding a job. Therefore, participants in the survey were asked to indicate whether or not their initial education contributed to aspects such as finding a job easily, finding a job with high salary, finding a job with good career prospects etc. The second and third variable measure the contribution of the most important additional training program to a person's personal c.q. career development. In case of the contribution of the most important training program to someone's personal development the participants were asked to express this contribution in terms of whether it has supported their personal development and has raised one's work motivation, the extent to which the program has contributed to a better social functioning, or has resulted in an increased number of social contacts. In the same way participants were asked to express the career developmental effect of the most important training program in terms of an increased employability, the extent to which this training program has supported one's own career development or has resulted in promotion within the organization, the extent to which the program has contributed to a better position on the labor market, whether it has resulted in a higher salary, or has led to a management function within the organization. The fourth variable, career ambition, refers to the extent to which a person is explicitly motivated extrinsically and in making a career, instead of being more intrinsically motivated and interested in personal development. To measure this participants were asked to indicate the extent to which they attached and still attach great importance to highly economical working conditions such as having or finding a professional job, primary

and secondary working conditions, career perspectives and promotion possibilities, or HRD facilities. The variable income (gross earnings per annum corrected for the size of the job) is measured in twenty blocks of 10.000 Dutch guilders (this equals with blocks of 4,538 Euro) each.

A linear regression analysis was conducted to test the proposed model. Additionally, in order to obtain a better view of the exact relationship between the variables also a path analysis will be conducted to test the model. The results of this last analysis are not presented here, but are to be discussed at the AHRD conference.

Data collection

The data on which the study is based comes from a study that is conducted for a national weekly magazine (with a readership of over 250,000 persons) with a large number of advertisements for jobs for higher educated employees. This study started in 1995 with a base-line measurement. It was repeated with a slightly changed questionnaire in 1996, which one in turn was further improved and repeated in 1998 (De Jong, Witziers, & Mulder, 1999). And the fourth measurement will be conducted in the end of the year 2000. The results presented in this paper are from the data that were collected in 1998.

Sample

The questionnaire is published in the magazine on December 10th, 1998. Apart from that 5,000 printed copies were sent by direct mail to a random selection from the readership. The number of respondents was 1,957. From the 5,000 questionnaires that were sent by direct mail, 1050 came back; from the magazine, the remaining 907 were returned. Although the response rate is relatively small, the total number of respondents is large enough to make a valid statement about HRD for higher educated employees, and the relationship between HRD and income.

For the readership mostly consists of higher educated employees with engineering, information technology, economics and financial backgrounds, one must take this into account with respect to the results of this study.

Results

Based on linear regression analysis results (see Table 1) show that the most important factors contributing to job level are level of initial education, number of years of work experience, economic sector of the organization and perceived career effect of the most important training program. More specifically, this implies that higher positions are held by university graduates, workers with more work experience, and workers in the profit sector. With respect to the participation in HRD activities four indicators have a significant relationship with job level. The negative relationship with the nature of the most important training program means that the higher job levels persons hold, the more they appear to participate in HRD activities focussed on specialization/updating instead of retraining. The negative relationship with the individual's goal of the most important training program means that the higher job levels persons hold, the less their HRD activities are focussed on personal development instead of on career development. Furthermore, the negative relationship between the perceived personal value of the most important training program and job level implies that the more this program has been perceived as supporting mostly personal needs, the less it could – and will – contribute to obtain or guarantees higher positions. Vice versa, the positive relationship with the perceived career effect of the most important training program means that workers who experienced substantial career developmental effect of their most important additional training program now indeed hold higher positions. Especially this last variable, the perceived career effect of the most important additional training program, has a relative substantial impact on job level. When all four indicators of HRD activities are considered, results show that they have a modest effect on job level; 5.5% of the variance in job level is explained by these HRD activities.

Table 1

Linear regression analysis on the exploratory model concerning the relationship between HRD activities and job level

Cluster	Model	R^2	Variable	Standardized Regression coefficient	T-value	Sign. level*
Personal characteristics	1	.212	Number of years of work experience	.50	18.70	.000
Initial education	2	.223	Level of initial education	.13	4.89	.000
Work environment	3	.232	Economic sector of the organization	-.09	-3.56	.000
Participation in HRD	4	.287	Nature of most important training program	-.06	-2.50	.013
			Individual's goal of training program	-.11	-4.26	.001
			Perceived personal value of most important training program	-.07	-2.24	.025
			Perceived career effect of most important training program	.24	7.52	.000

* = Significant at the .05-level

$R^2 = 0.29$

The results concerning the income variable show that many variables included in the analysis have a significant relationship with income (see Table 2). More specifically, this implies that most of the variables having a clear relationship with the variable job level, also directly affect the variable income in the same way. In other words, controlled for job level, men have a higher income than female workers, university graduates earn more than vocational education graduates, workers in the profit sector earn more than workers in the non-profit sector. Additionally, workers in larger organizations and having more work experience earn more than workers in smaller organizations and workers having less work experience. Finally, two variables concerning the participation in HRD activities have a significant relationship with income. The positive relationship between the perceived career effect of the most important training program and income implies that respondents stating that they perceived some career effect of their most important training program earn more than respondents stating this was less the case. The positive relationship with the total time spent on short training programs taken per year means that the more people yearly participate in short training programs and the more time this all requires in terms of the number of working weeks a person is busy with such programs, the more these people will earn. But the impact of HRD activities is very small. Only 0.6% of the variance in income is explained by these HRD activities. As such, the main conclusion is that participation in HRD activities has an impact on respondents' income, but this impact is modest and must certainly not be exaggerated.

Table 2

Linear regression analysis on the exploratory model concerning the relationship between HRD activities and income

Cluster	Model	R^2	Variable	Standardized Regression coefficient	T-value	Sign. level*
Personal characteristics	1	.358	Gender	-.17	-7.59	.000
			Number of years of work experience	.47	17.96	.000
Initial education	2	.422	Level of initial education	.22	8.73	.000
			Field of initial education	-.06	-2.20	.028
			Perceived quality of initial education	.09	3.77	.001
Career position	3	.522	Job level	.32	12.79	.000
Work environment		.561	Economic sector of the organization	-.19	-8.31	.000
			Size of the organization	.08	3.49	.001
Participation in HRD		.567	Total time spent on short training programs per year	.05	2.09	.037
			Perceived career effect of most important training program	.06	2.72	.007

* = Significant at the .05-level

$R^2 = 0.57$

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Conclusion

The main conclusion of this paper is that most of the variables included in our model have a significant and positive relationship with job level and income. More specifically, gender, work experience, level of initial education and economic sector but also variables concerning the participation in HRD activities, such as the nature and goal of the most important training program, number of short training programs taken per year, and the perceived career effect of most important training program, have a significant relationship with either job level and/or income. Moreover, the direction of the relationships is in most cases in the expected direction. That is, our results are in line with either theoretical notions and/or results from previous research. So, to go back to our general research question, the answer is positive. Human Resource Development activities do affect future job level and income of higher educated professionals.

Moreover, as far as the dependent variable job level is concerned, the impact of HRD activities is modest. Apart from the personal characteristics respondents benefit most from participation in HRD activities for obtaining a higher position. More specifically, after work experience HRD activities explain most of the variance in job level. However, the impact of HRD activities on the dependent variable income is a different story. It is not that strong as we might expect. It must be noted that variables relating to participating in HRD activities, although some of these variables show a significant relationship, their impact on the dependent variable income is anyhow very modest. Certainly if the impact of HRD activities is seen in comparison to the impact of other variables such as gender, initial education, work experience and economic sector. These other variables explain far more of the variance in income. In other words, participants of HRD activities also benefit from their participation in terms of getting a higher income, but this effect must not be exaggerated. As such, these results are in line with other studies (Barron, Black & Loewenstein, 1989; Groot, 1994; Holzer, 1988; Mincer, 1989). The results of these studies also show that participating in HRD activities does contribute to a higher job level and /or a higher income.

Concerning the question why participating in HRD activities in fact only pays off in terms of individuals' job level and does not automatically result in a higher income, in our view the most important reason for this is straightforward. Participating in HRD activities, in general, is a very logical way to develop one's career, but it is eventually one's actual career position in terms of employability that guarantees a certain income. In fact our model is showing this. The model postulates that participation in HRD activities affect individuals' career position directly, and that the participation in HRD activities mainly affects income indirectly by promoting their career position. The fact that in a few occasions sec the participation in HRD activities already results in a higher income, must be attributed to the type of work and the role of HRD activities in such cases in our view. Certain jobs demand much HRD, because tasks are extremely function related and highly specialistic and/or knowlegde base is changing rapidly here. So, in these exceptional cases one could say that 'HRD is money'.

How should the results be interpreted practically? The question here is what can be said about the variance in job level and income that is explained by HRD activities. As the results show participating in HRD activities has a significant, but modest impact on individuals' job level and only a very small impact on their income. However, the variances in job level and income explained by HRD activities refer to overall results. So, one should recognize that for the individual's career development and raise in income HRD activities might have a considerable effect, especially when seen in time as it can intensify itself.

Finally, we have to point at the limitations of our study. Our study is limited with respect to the measurement of several variables, including the income variable and the measurement of participation in HRD. These deficiencies can mask the true effect of participating in HRD activities. Furthermore, our exploratory model postulates causality based on the theoretical notions regarding career development, but this has not been proven empirically within this study. To do this you need a longitudinal research design with cohorts. But in the sector of corporate training for higher educated employees research is in most cases confined to a more practical, comparative design like ours.

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The Relationship Between Training and Organizational Commitment in the Health Care Field

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This survey study examines the relationship between employee attitudes towards training received and feelings of organizational commitment among a sample of 337 registered nurses from five hospitals. Results show that perceived access to training, social support for training, motivation to learn, and perceived benefits of training are positively related to organizational commitment. The findings are discussed for their theoretical and practical application to HRD outcomes and for the management of HRD in health care settings.

Keywords: HRD Outcomes, Organizational Commitment, Health-Care

Despite the fact that the scope of training in industry is expanding (ASTD ,1999), there remains concern over the contribution of training towards desired organizational outcomes. The expanded role of training places continued pressure on human resource development (HRD) professionals to develop more effective training methods, programs, instructional systems, and to conduct evaluations that demonstrates a return to the organizations from their training investments (Rush, 1996). This research study explores a potential new method of examining an outcome of training in organizations by exploring the possible relationship between training to organizational commitment. Organizational commitment is a term that refers to a person's type and strength of attachment to his or her organization (Arnold, Cooper & Robertson, 1998).

Problem Statement and Theoretical Framework

Training has been identified as an example of an HRM practice that contributes to gains in competitive advantage (Schuler & MacMillan, 1984) with some suggesting that contributions to productivity and organizational performance have become the most dominant argument for justifying training (Scott & Meyer, 1991). Yet, there remains a shortage of empirical support for the notion that HRD positively impacts organizational performance (Torraco, 1999). Given the challenges in measuring performance a more productive line of enquiry may be to examine relationships between training and desired workplace attitudes, which, in turn, have been found to positively relate to organizational effectiveness.

One of many work-related attitudes being examined for its relationship to the management of employee behavior is organizational commitment. In general terms, organizational commitment can be thought of as the level of attachment felt towards the organization in which one is employed. Early research considered organizational commitment as a uni-dimensional construct, however, it is now more widely acknowledged as being multi-dimensional (Meyer & Allen, 1997).

Meyer and Allen (1991) define the three constructs of organizational commitment as: "*Affective commitment* refers to the psychological attachment to the organization, *continuance commitment* refers to the costs associated with leaving the organization, and *normative commitment* refers to a perceived obligation to remain with the organization"(p.1). It should be noted that it is more appropriate to consider these to be components, rather than types, of commitment because an individual employee's relationship with an organization may vary across all three.

Much of the interest in organizational commitment stems from reports of positive consequences on employee behavior and work outcomes. Some HRD authors have suggested that training should be designed to achieve increased organizational commitment as an outcome (Lang, 1992). Higher levels of commitment were found to influence motivation for training, levels of participant knowledge following a training program (McEvoy, 1997), and the transfer of training process (Seyler, Holton, Bates, Burnett, & Carvalho, 1998). Previous research shows positive outcomes, such as reduced turnover, absenteeism, and extra-role performance resulting from increased levels of organizational commitment (Meyer & Allen, 1997). Therefore, the relationship employee

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perceptions regarding training provided by their employer and their level of organizational commitment is potentially valuable in exploring the outcomes of training.

The theoretical framework which guided this investigation, is centered on the employment relationship which is in-turn embedded in the context of social exchange theory (Blau, 1964). The terms and conditions of this reciprocal exchange between employee and their organization are defined in both formal written contracts and within in the psychological contract (Rousseau, 1989). Psychological contracts describe an individual's beliefs about their employment relationship and guide employee beliefs about what they think they are entitled to receive, or should receive, because of real or perceived promises from their employing organization (Robinson, Kraatz, & Rousseau, 1994). Human resource management (HRM) practices are acknowledged as affecting the psychological contract (Lucero & Allen, 1994). More recently, it has also been suggested that HRD managers have a role in defining and maintaining employees' psychological contracts (Sparrow, 1998). Training can be viewed as a management practice that can be managed to elicit a desired set of unwritten reciprocal attitudes and behaviors including organizational commitment. In return for demonstrations of these desired work-related behaviors many employees now view training as a "right of membership" (Scott & Meyer, 1991, p. 298) and as a benefit of employment. Therefore, training can be thought of as an HRD practice that influences workplace attitudes and behaviors.

Research Questions

The core question for this research was, to what degree are perceptions of training related to organizational commitment? More specifically, six research hypotheses were tested as the development of attitudes towards training are influenced by many other variables.

One of the key determinants of attitudes towards training results from participation. However, traditional measures of training participation have relied on measures of frequency (how many training events) and duration (period of time for training events). Perceived access to training was added as an alternative measure as this has been shown to correlate with actual participation (Tharenou, & Conroy, 1994).

> Hypothesis 1a. *The will be a positive relationship between participation in training measured by frequency and duration and organizational commitment.*
> Hypothesis 1b. *The will be a positive relationship between access to training and organizational commitment.*

Perceived support for training from colleagues, and support from senior staff influences the decision to participate in training and development activities (Noe & Wilk, 1993). The influence of social support from senior staff, supervisors as well as peers, colleagues, and fellow workers is considered important as social support may play a role in the frequency and duration of training experiences that an individual participates in as well as addition to developing attitudes about perceived access to training.

> Hypothesis 2a. *The will be a positive relationship between support for training from senior staff and organizational commitment.*
> Hypothesis 2b. *The will be a positive relationship between support for training from colleagues and organizational commitment.*

Among all of the personal and dispositional attitudes that affect participation in training, motivation to learn is frequently cited as being among the most important (Fleishman & Mumford, 1989). Training motivation can be thought of in general terms as a level of motivation towards participation in training and development activities. Training motivation has important implications for how employees perceive training related variables such as access, benefits, and support for training.

Hypothesis 3: Employees with higher levels of training motivation will report higher levels of organizational commitment.

The perceived benefits of training have been found to impact participation and recall of past training. Nordhaug (1989) identified three different types of benefits that employees obtain from participation in training; personal, career, and job related benefits. Those who reflect positively on training benefits are thought to exhibit stronger feelings of organizational commitment towards the organization that provided the training.

Hypothesis 4. *The will be a positive relationship between perceived benefits of training and organizational commitment.*

The potential relationship between training and organization commitment is most likely moderated by other workplace attitudes. This study considered the role of job involvement, and job satisfaction as potential moderators.

Hypothesis 5. *The relationship between access to training and affective organizational commitment will be moderated by job involvement*
Hypothesis 6. *The relationship between access to training and affective organizational commitment will be moderated by job satisfaction.*

Methodology

Sample and Procedures

A self-administered written questionnaire was used to collect individual-level perception data on the relationship between training and organizational commitment. Even though perceptions of training practices may have limits, Schneider, Ashworth, Higgs, and Carr (1996) note that significant correlations exist between employee reports of the practices and procedures under which they work when compared to judgments made by external observers. This suggests that employees are an accurate gauge of HRD practices. The target population was registered nurses (RNs) employed in public hospitals. A sample of public hospitals was drawn from the Directory of Hospitals published by the Department of Public Health in a mid-western state. A stratified approach was used for selection to ensure variability in organizational size, and whether the hospitals served an urban or rural population as these variables may influence the amount of training provided.

Completed and useable surveys were collected from 337 registered nurses employed in five hospitals located throughout the state. Response rates ranged from 6% to 51% with follow-up research with hospital administrators confirming that the characteristics of respondents closely reflected the total employee population. As could be expected from a female-dominated profession, the majority of respondents were women (n = 319, 94.7%). Almost half (49.6%) of the respondents had completed at least a four-year college degree, have been a registered nurse for an average of 14.84 years and have been employed as a RN at their current place of work for an average of 10.52 years.

Measures

The variables under investigation were divided into three categories: training related variables, organizational commitment variables, and moderating variables. Training was viewed as the independent variable and was divided into six sub-variables. A three-item scale was developed to measure perceived access to training (α = .76). Other study variables were selected from well-established and validated scales. These included four items to determine training participation based on frequency and duration of training events (Tharenou & Conroy, 1994), a shortened six-item form of the perceived support for training from colleagues scale (α = .83), the 16-item perceived support from senior staff scale (Noe & Wilk, 1993, α = .96), the 11-item motivation to learn scale (Noe & Schmitt, 1986, α = .87); and the 14-item perceived benefits of training scale (Noe & Wilk, 1993, α = .82). Organizational commitment was measured by the Affective, Continuance, and Normative Commitment Scales of Allen and Meyer (1990, α = .86, .79, .89 respectively). The moderating variables were measured by the shortened form of the Lodahl and Kejner (1965) job involvement scale (α = .52), and the three-item Michigan Organizational Assessment Questionnaire Sub-scale was used for job satisfaction (Cammann, Fichman, Jenkins, & Klesh, 1979, α = .85).

The survey was developed and pilot tested in consultation with a small group of experts in both nursing and HRD. Item non-response was treated as missing data with analysis revealing no underlying pattern of missing responses. Data analysis employed bivariate correlations, and stepwise-multiple regression analysis for the six hypotheses. Factor analysis was used to confirm the suitability of the access to training scale.

Results

Means, standard deviations, bivariate correlations among the study variables are presented in Table 1.

Table 1
Correlations for all Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
TRF												
ACC	.10											
SSC	.03	.22*										
SSS	.04	.50**	.37*									
TMO	.12*	.07	.10	.15**								
TBP	-.01	.26**	.24**	.36**	.61**							
TBC	.01	.28**	.25**	.36**	.44**	.72**						
TBJ	-.10	.11	.12*	.17**	.06	.25**	.32**					
ACM	.05	.44**	.30**	.64**	.17**	.33**	.32**	.11				
CCM	.11	.06	-.04	.14*	-.05	-.08	-.19**	.09	.08			
NCM	.12*	.41**	.14**	.58**	.17**	.34**	.32**	.16**	.72**	.21**		
JBI	.11	.22**	.04	.28**	.24**	.28**	.26**	.12*	.39**	.14*	.41**	
JST	.07	.43**	.35**	.56**	.11*	.30**	.33**	.09	.68**	.05	.62**	.29**

Key: *p <.05, **p < .01; Variables: TRF = Training Frequency, ACC = Access to Training, SSC = Social Support for Training from Colleagues, SSS = Support for Training from Senior Staff , TMO = Training Motivation, TBP = Personal Related Benefits of Training, TBC = Career Related Benefits of Training, TBJ = Job Related Benefits of Training, ACM = Affective Commitment, CCM = Continuance Commitment, NCM = Normative Commitment, JBI = Job Involvement, JST = Job Satisfaction, .

Training participation based on duration was found to be significantly and positively related to affective commitment ($p < .01$, $r = .15$) and significantly but negatively related to continuance commitment ($p < .05$, $r = -.11$). Training frequency (number of training events) was significant only with affective commitment providing partial supports hypothesis 1a. Perceived access to training shows a stronger relationship with affective commitment at the $p < .01$ level ($r = .44$) and with normative commitment ($r = .41$) supporting the hypothesis 1b. The relationship between support for training from senior staff and organizational commitment was significantly related to all three forms of commitment supporting hypothesis 2a. The relationship between support for training from colleagues was significantly related to both affective and normative commitment supporting hypothesis 2b.

Results show a significant positive relationship between motivation to learn and organizational commitment among the affective and normative forms of commitment, which partially supports hypothesis 3. The relationship between career related benefits of training was significant with all three forms of commitment, personal benefits to both affective and normative commitment, and job related benefits of training to normative commitment. This provides partial support for hypothesis 4.

As discussed above, the relationship with participation in training and organizational commitment was most significant with access to training. Therefore, duration and frequency of training were dropped from all further analysis. A regression analysis using access to training to predict organizational commitment when moderating for job involvement was found to be insignificant providing no support for hypothesis 5. However, hypothesis 6 was supported and significant ($p < 0.01$) for affective commitment with 51.7% of the variance explained. These results are presented in Table 2. This suggests that, when controlling for organizational size and moderating for job satisfaction, those who feel that they have higher levels of access to training are more likely to exhibit higher feelings of affective commitment. Whereas, those low in job satisfaction and those low access to training also feel lower levels of affective commitment.

Table 2
Stepwise Regression Analyses for Main and Moderating Effects: Access to Training and Organizational Commitment Moderated by Job Satisfaction

Variable	Affective Commitment		Continuance Commitment		Normative Commitment	
Access to Training	-.22	-0.34	.03	.04	-.09	-.13
	(.01)*		(.15)		(.12)	
Organizational Size	-.23	-.02	-.02	-.01	-.51	-.19
	(.10)**		(.15)		(.12)***	
Job Satisfaction	.19	.26	.08	.07	. 25	.31
	(.08)**		(.12)		(.09)***	
Interaction Term	.06	.74	.02	.02	.04	.45
	(.02)***		(.03)		(.02)**	
R^2	0.52		0.01		0.45	
F	83.51***		.42		63.96***	
Df	316		321		318	

***p < .01 **p < .05 *p < .10. Numbers in parentheses = standard error

Overall, findings indicate that significant relationships exist between organizational commitment and hours spent in training, access to training, motivation to learn, support for training from colleagues and senior staff, and perceived benefits of training. The affective form of organizational commitment shows the most consistent relationships with these variables. Job satisfaction, but not job involvement moderate the relationship between access to training and affective commitment.

Conclusions And Recommendations

The difficulty in evaluating training programs has prompted researchers to explore work-related variables as surrogate measures for evaluating HRD activities. The application of organizational commitment as an outcome of training allows training to be measured at multiple levels while also addressing the call to analyze individual change following training over a long period of time.

The following conclusions can be made based upon the analysis of all data in this study. First organizational commitment is related to participation in training. However, perceived access to training appears to result in a stronger relationship than either the number of training events attended or the number of hours spent in training during the past year. Second, organizational commitment is related to training related issues that measure the perceived support for training from senior staff and colleagues, personal motivation to learn, and the perceived benefits of training. The strongest relationships are with the emotional or affective form of organizational commitment. Finally, the affective component of organizational commitment is related to access to training when the moderating influence of job satisfaction is controlled for.

The findings of this study have numerous implications for those employed in management and administrative positions within the health-care field and for HRD practitioners. This study has shown that training can play a role in the development and maintenance of organizational commitment. This should encourage managers to further explore the role of commitment and its relationship to improvements in retention and productivity. While organizational commitment is a diverse construct with a large body of theoretical and empirical literature, HRD managers can focus on a few key elements. First, it appears that affective commitment is the most important to foster within organizations. Second, HRD practitioners should focus on the job related antecedents to commitment rather than personal or situational characteristics over which they have little control. Adapting the summary of relevant job-related and organizational antecedents of high levels of affective commitment from Pinks (1992) HRD managers could play a role in increasing job challenge, role clarity, participation in decision making about training, and communicating that the organization depends on the continued efforts of each employee. Finally, HRD professionals can capitalize on the existing empirical work on commitment to demonstrate to organizational decision-makers that training contributes to commitment, which in turn relates to desired work place attitudes and behaviors such as reduced absenteeism and turnover.

Future research should seek to further explore the use of organizational commitment and other work-related variables as potential outcomes for HRD. This type of research would be well suited to longitudinal studies

employing both quantitative and qualitative methodologies. Ideally studies would involve larger samples and involve a wide range of organizations in both private industry and public agencies. It is with such efforts that HRD can develop into a major force in the continued search for a greater understanding of the role of developing human resources for achieving organizational success.

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The Role of HRD in Promoting Job Satisfaction in Malaysian SMEs

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Malaysia has emerged as a major economic force in the Asia-Pacific region. While the recent growth is supported in part by government initiatives, much credit can be attributed to the development of small-medium enterprises (SMEs). Recent U.S. studies have found evidence of extensive HRD in SMEs, and other recent studies found higher levels of job satisfaction among employees of small firms. This study measured the nature and extent of HRD; the level of job satisfaction among workers; and determined the correlation between workplace learning and job satisfaction in Malaysian SMEs.

Keywords: Workplace Learning; Job Satisfaction; Small Business

Malaysia is a resource rich country and a major socio-economic force in the Asia-Pacific region. Historically, the economy of Malaysia was based on agriculture and natural resources. Over the past 25 years, the pace of development of the Malaysian economy has been rapid. Throughout the 1980s and early 90s, the economy grew at an average annual rate of 7.8 per cent. Strong growth in public investment and exports during this period stimulated domestic demand and contributed to a consistent rise in income and employment. But the Asian economic recession of the late 1990s and the severe worsening of Malaysia's external terms of trade led to a general slow-down in the growth performance. Various adjustment measures were used by the Government to restore balance and stability. The economy now appears to be emerging from the recession and recording GDP growth rates around 4 per cent per annum (Lucas & Verry, 1999).

Wan (1994) reports that until these relatively recent undertakings " enterprise training in Malaysia received little attention from policy makers. Even now not much is known about it, despite the fact it is one of the most important sources of job-specific skill development" (p. 58). In fact, Chalkley (1991) reports that the realization of the importance of training is a recent concept in Asia. The companies tackling such problems represent the exception rather than the norm. On average, companies in Malaysia and Indonesia undertake more training days than their counterparts in Singapore and Hong Kong, but spend less. This is because management training receives greater emphasis in Hong Kong, South Korea, and Singapore, while in Malaysia there is a greater emphasis on skills training, which is generally cheaper to organize. The estimates are that Malaysia spends an average of US$200 on training per employee per year.

By comparison, British firms invest approximately US$5,000 annually per employee and Germany invests an average of US$7,500 annually per employee. U. S. firms invest, on average, US$1,800 per year per employee in training and development, or by another estimate a total of US$60.7 billion a year. Furthermore, estimates suggest that about 8 percent of new employees receive formal training in their first year of employment in U. S. firms and 20 percent of new employees receive such training in European firms, and 74 percent receive such training in Japanese firms (Hitt, 1998; Training Industry Report, 1998).

Developing the human resources of a company would seem to be key to increasing production and closing the gap between the level of worker skill and present and future needs. Businesses that have made training, education, and development a priority have seen it pay off through greater profitability and increased worker job satisfaction (Coblentz, 1988; Filipczak, 1989). Recent studies have found that job satisfaction is rarely tied to pay and promotion; but rather, workers are more interested in such things as feeling appreciated, being "in on things," and career development (Buhler, 1994; Dolan, 1996) all of which have linkages to workplace learning.

Job satisfaction is simply how people feel about their jobs and different aspects of their jobs. There are important reasons why organizations should be concerned with job satisfaction, which can be classified according to the focus on the employee or the organization. First, the humanitarian perspective is that people deserve to be treated fairly and with respect. Job satisfaction is to some extent a reflection of good treatment. It also can be

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considered an indicator of emotional well being or psychological health (Haccoun & Jeanrie, 1995). Second. the utilitarian perspective is that job satisfaction can lead to behavior by employees that affects organizational functioning, as well as a reflection on organizational functioning. Differences among organizational units in job satisfaction can be diagnostic of potential trouble spots (Beatty, 1996). Each reason is sufficient to justify concern with job satisfaction. Combined they explain and justify the attention that is paid to this important variable.

However, until recently, most studies like the ones by Coblentz (1988), Beatty (1996), and Hitt (1998), for example, have been conducted in large corporations. Few firms in the samples have had annual sales of less than US$1 billion. Most U.S. businesses are small to mid-sized with annual sales well under US$10 million (Lee, 1991). No exact figures are available on the nature and extent of small businesses in Malaysia, but it is clear that they constitute a substantial part of the overall economy (Chalkley, 1991). The figures in 1995 indicate that they accounted for 84 percent of the total *manufacturing* establishments. In the same year, their contributions to total *manufacturing* output and employment amounted to 15 percent and 18 percent, respectively (Hashim, 1999).

To date, little is known about the relationship between workplace learning and employee satisfaction in small to mid-sized companies. Studies by Des Reis (1993) and Rowden (1995) have found that such firms may not even be aware of the nature and extent of learning in their workplaces. Yet it is likely that the success of such companies is at least attributable to the ways in which employees are attended to, formally and informally trained, and developed.

Statement of the Problem

Conventional wisdom says that small businesses do not have the financial resources nor the time to do very much, if any, training and development or workplace learning. These views on training in small businesses have generally been supported each time quantitative research has been conducted in a variety of small businesses. However, a recent qualitative study (Rowden, 1995) found that, in fact, U.S. small businesses do engage in a considerable range of formal, informal, and incidental workplace learning activities. The information gleaned from the interviews, observations, and documents provide a new foundation upon which questionnaires can be developed that can assess the extent of workplace learning from a perspective that small businesses truly understand.

Another recent study (Anonymous, 1997) found that workers in U.S. small businesses were generally more satisfied with their employment situation than were workers in larger companies. The study found that 44 percent of the workers in small businesses said they were "extremely satisfied" with their jobs, compared with 28 percent at companies with 1,000 or more workers. It was speculated that factors such as job security, empowerment, and the ability to do what they do best might explain job satisfaction. While workplace learning was not one of the indicators in the study, the respondents reported that they could learn and grow on the job.

An assumption of this study is that a sense of satisfaction a person feels about his or her employment can be directly linked to workplace learning. That is, employees who have opportunities to grow and learn in their job will express higher levels of job satisfaction. To test this assumption, this study first established the nature and extent of workplace learning in small to mid-sized businesses; established the level of job satisfaction reported in the same small to mid-sized businesses; and established the relationship between these learning opportunities and the level of employee satisfaction in these organizations.

Purpose and Research Questions

The overall purpose of this study is to understand workplace learning in the Malaysian context. The specific research questions are:

1. What is the nature and extent of workplace learning in small to mid-sized Malaysian businesses?
2. What is the relationship among three types of workplace learning (formal, informal, and incidental) in the Malaysian context?
3. To what extent do those three types of workplace learning explain job satisfaction?

Methodology

A survey research design was deemed the most appropriate way to understand the relationship between workplace learning and employee job satisfaction. A survey instrument was developed that captures the essence of the findings

on workplace learning revealed by the Rowden (1995) study combined with the Spector Job Satisfaction Surv[illegible] (1997).

Description of the Sample

Five Malaysian companies agreed to participate in the study. Potential companies were identified through contact with the local university. Students from the HRD program at the university administered the surveys at the companies. A total of 228 surveys were returned. The five companies consisted of a manufacturing firm, two financial services firms, an educational/training company, and a non-government organization (NGO). The manufacturing firm has been in business for 11 years, employs 54 people, and has gross annual revenues of RM 3, 000,000 (RM [ringgitt] 3.8=$1 USD at the time of this writing). The financial services companies have been in business for around 10 years, employ a combined 150 people, and produce annual gross revenues of RM 360,000,000. The training company has been in business for eight years, employs 100 people, and has gross revenues of RM 3,000,000. The NGO has been in business for 12 years, employs 124 people, and while it does not generate revenue it has an annual budget of RM 2,000,000.

All the respondents worked full time. Fifty two percent were female. Eighty seven percent were between the ages of 21 and 44. Sixty percent were married. Thirty eight percent worked at companies with fewer than 100 employees and 59 percent worked for companies that employed between 100 and 200. Eighty six percent have been employed by their current company for less than 10 years. Sixty five percent are non-supervisory and 69 percent earned between RM $1000 and RM $3000 per month. Seventy four percent worked in service industries while 26 percent worked in manufacturing.

Instrument

There is limited research on HRD in small to mid-sized businesses. Most people believe that small businesses do little, if any, development of their workers. For example, *Training Magazine*, which annually conducts a study of the training industry in the U.S. annually, does not even attempt to contact businesses with fewer than 100 employees and only 16 percent of their sample consist of companies with between 100 and 500 workers. Even the Malaysian HRDA ignores manufacturing firms with fewer than 50 employees.

Several attempts have been made to determine the nature and extent of workplace learning in small business. Invariably, the studies concluded that, in fact, little HRD occurs in small businesses (for example, Des Reis, 1993; Hill & Stewart, 1999). A review of several of the studies determined that a likely cause of the lack of discovery of workplace learning in small businesses was due to the design of the surveys. A qualitative study by Rowden (1995) did reveal numerous indices of workplace learning in small to mid-sized businesses in the U.S. By looking at the field notes and transcripts of interviews of workers, it was believed that previous attempts to capture workplace learning in small to mid-sized businesses was due in large part by the language of the questionnaire. Making every attempt to stay as close as possible to the language and references used by actual workers in small to mid-sized businesses, a survey was developed to attempt to capture the nature and extent of workplace learning in these businesses.

The research on job satisfaction in small businesses mirrors that of HRD in small businesses. Until a recent study (Anonymous, 1997) little attention had been paid to worker job satisfaction in small businesses. This study found that workers in small businesses, generally, were more satisfied with their work than were workers in larger businesses. The study did not, however, seek to determine *why* the workers were more satisfied. The study mentioned ideas like better communication, a feeling of being in on things, and a smaller power distance— but no factors were actually measured. Again based on the Rowden (1995) study, a possible connection could be made between workplace learning and job satisfaction. To determine if this hypothesis were true, workplace learning and job satisfaction would have to be measured in the *same* small businesses. Then, correlational measures could be made to determine if small to mid-sized businesses with high measures of workplace learning *also* had high measures of job satisfaction. The Spector (1997) Job Satisfaction Survey was determined to be the best-validated and reliable instrument for determining job satisfaction. A modified version was incorporated into the questionnaire along with request for background data.

Once developed, the instrument was subjected to critique sessions by area experts and graduate HRD classes to ensure for content validity. The process was continued until saturation was reached; that is, until no more distinct categories could be ascertained. The Malaysian version required some modification for cultural differences. For example, religious education had to be added since this is often provided for by Muslim employers and the

"married— not married" question had to be expanded to cover all possibilities since feedback indicated "not married" sounded too much like a "*curse*" to them.

The results of the development process was a six page self-administered questionnaire. The instrument is divided into three sections— workplace learning, job satisfaction, and background information. The three constructs or dependent variables for the workplace learning portion were formal, informal, and incidental learning. The reliability for each measure was conducted using Chronbach's alpha. The *formal* learning scale (10 items, alpha = .83) included items measuring respondent's perceptions of planned, organized, training activities. The informal learning scale (8 items, alpha = .73) included items measuring respondent's perceptions of unplanned or spontaneous activities that lead to perceived learning on the job. The *incidental* learning scale (6 items, alpha = .65) included items designed to measure respondents perception of normal workplace activities that resulted in learning even though that was not the purpose of the activity.

Table 1. **Results of Exploratory Factor Analysis of Job Satisfaction Items**

Item	Loading
FACTOR I: *Alienation From Work*	
*I do not feel that the work I do is appreciated	.71
*I feel unappreciated by the organization when I think	.71
*I often feel that I do not know what is going on with the organization	.66
*I sometimes feel my job is meaningless	.62
*The goals of this organization are not clear to me	.61
*My supervisor shows too little interest in the feelings of subordinates	.57
My efforts to do a good job are seldom blocked by red tape	.55
*My supervisor is unfair to me	.53
*I am not satisfied with the benefits I receive	.51
*I dont feel my efforts are rewarded the way they should be	.50
FACTOR II: *Compensation*	
The benefits we receive are as good as most other organizations offer	.77
I feel I am being paid a fair amount for the work I do	.75
I feel satisfied with my chances for salary increases	.71
The benefits package we have is equitable	.69
I am satisfied with my chances for promotion	.65
When I do a good job, I receive the recognition for it that I should receive	.63
Those who do well on the job stand a fair chance of being promoted	.51
FACTOR III: *Enjoyment*	
I enjoy my coworkers	.73
I like my supervisor	.67
My job is enjoyable	.63
I like the people I work with	.60
I feel a sense of pride in doing my job	.56
I like doing the things I do at work	.56

* reverse-scored item

The Spector Job Satisfaction Survey was embedded into the instrument. The 36 items were designed to measure nine separate aspects of job satisfaction. However, after the data collected were subjected to preliminary analysis, it was found that none of the nine measures yielded adequate reliability. This may have been because the JSS was developed in the United States and some items may carry different meanings in other cultures, or it could simply be an artifact of too few indicators per construct being measured. Consequently, it was decided to subject those 36 items to exploratory factor analysis to determine the underlying constructs that constituted those nine measures. During this process, numerous solutions both octagonal and oblique were explored ranging from two through eight factor solutions. The ultimate criteria were conceptual meaningfulness. Table 1 shows the results of the exploratory factor analysis.

As a result of the exploratory factor analysis of job satisfaction, the dependent variables were identified as alienation from work, compensation, and enjoyment. The items comprising each of these factors were combined into additive indices and the reliabilities were calculated. *Alienation From Work* (10 items, Chronbach's alpha = .84) included items measuring being appreciated, feeling "in" on things, and satisfaction with the quality of supervision. *Compensation* (7 items, Chronbach's alpha = .83) included items measuring feelings about pay, benefits, and promotion. *Enjoyment* (6 items, Chronbach's alpha = .75) measured if the respondent liked his or her work, supervisor, and coworkers. The *overall* measure of job satisfaction received an alpha of .81. Table 2 contains the distribution and reliabilities of the key measures.

Table 2. Distribution and Reliabilities of Key Measures

Measures	Mean	S.D.	Min.	Max	Coefficient Alpha
Formal Learning	28.74	8.66	8	48	.83
Informal Learning	24.34	5.26	10	36	.73
Incidental Learning	21.83	3.75	11	30	.65
Alienation	34.70	8.88	10	58	.84
Compensation	21.51	5.89	6	32	.83
Enjoyment	26.96	4.34	14	36	.75
Overall Job Sat.	129.48	15.86	74	175	.81

The third section of the instrument contains nine ordinal and nominal scale items designed to capture additional information about the respondents. These items were also subjected to analysis with some minor correlations noted. However, they were not germane to the study and are not reported here.

Table 3. Workplace Learning Responses (N=214, may vary slightly due to missing responses)

	Mean	Std Deviation	% Responding 5 or 6 (top of Agree Scale)
Incidental			
What I learn about my job happens as a natural consequence of doing things and keeping busy	4.27	1.34	51.2
When I make a mistake, my boss or a co-worker helps me to identify what to do to avoid doing it again	4.36	1.17	49.8
I am encouraged to share my experiences with my co-workers	4.78	1.10	65.6
I often find time to review or reflect on my experiences	4.18	1.09	41.5
From time to time, I have the opportunity to work closely with co-workers with different skills	4.26	1.09	45.1
We have regularly scheduled or periodic meetings where we are encouraged to express our opinions	4.23	1.34	46.8
Informal			
I have the information that I need to do a good job	4.60	1.12	59.9
When I came to work here, or am transferred to another job, they have me work with someone who shows me how things work at this company	3.79	1.47	35.4
Managers feel that helping us learn how to do our job better is one of their important responsibilities	4.38	1.20	54.4
I have an opportunity for cross-training, or to learn skills from others in my department or office	3.83	1.38	39.3
The company supports me in professional associations related to my work	3.59	1.53	30.0
If a hazardous or dangerous situation is noticed, our supervisor will call us together to discuss it	4.10	1.35	43.7
Formal			
The company pays all or part of the costs of job-related courses at a local university, college, or voc-tech school	3.05	1.80	26.7
The company pays all or part of the cost of job-related courses in house, at the local training center, or hotel	3.94	1.75	45.3
When the company buys a new piece of equipment they have someone come out and show us how to use it	4.03	1.52	48.8
I sometimes attend professional conferences related to my job or profession	3.61	1.64	34.9
My company makes training funds available if I can demonstrate need or it is felt it will help me perform my job better	3.60	1.56	32.2
We have regularly scheduled meetings for training on the occupational safety and health	3.17	1.53	23.1
The company provides support if I want to further my formal education	3.48	1.62	29.2
There is support from top management for training activities	4.04	1.35	40.3

Data Analysis

The data were analyzed in a variety of ways. First, simple descriptive statistics (means; measures of variation—standard deviations; frequencies) were employed for the surveys from each company to determine the nature and extent of workplace learning in the companies. Then, the Pearson product-moment correlation was conducted to determine the intercorrelation among the three types of learning, and to determine the strength of the relationship between workplace learning and employee satisfaction across the companies.

In order to assess the relationship among the three types of workplace learning, two different analyses were conducted. In the first analysis, the mean-item mean for each of the three was calculated and compared so that the relative extent of each can be compared. The intercorrelation among the three was examined. They were different but related, which is what one would expect.

In order to answer research question 3, the correlation between the three-workplace learning measures and the four (3 + overall) job satisfaction measures were examined. Additional analyses examined the relationship between background variables and measures of job satisfaction and workplace learning.

Findings

Examination of the responses on the workplace learning portion of the instrument revealed sufficient evidence to conclude that learning is pervasive in these SMEs. Table 3 shows the means, standard deviations, and percent responding at the top of the "Agree Scale." The means and standard deviations indicate strong positive responses to the questions in all three arenas of learning. Findings support the notion that small businesses have a substantial amount of human resource development occurring in the workplace. In fact, the only questions that received somewhat low ratings dealt with whether or not the organizations reimbursed tuition for formal education and professional organizations. All other questions dealing with formal, informal, and incidental learning received strong support from the respondents.

The three measures formal, informal, and incidental learning were examined for the mean item effect. The mean-item means are: *informal* = 4.06; *incidental* = 4.37; *formal* = 3.59. Incidental learning has a greater place in the workplace by these numbers, followed closely by informal learning. Table 4 shows the intercorrelation among the three-workplace learning variables which is further evidence of validity. These measures provide further understanding of the nature and extent of HRD in Malaysian SMEs.

Table 4. Intercorrelation Among Three Types of Learning

		Incidental	Informal	Formal
Incidental	Pearson r	1.000	.683**	.519**
Informal	Pearson r		1.000	.698**
Formal	Pearson r			1.000

**. Correlation is significant at the 0.01 level (2-tailed)

Table 5 shows the relationship between workplace learning and job satisfaction. All three measures of workplace learning were significantly correlated with each of the four measures of job satisfaction.

Certain background variables exhibited weak but significant correlations with the three forms of workplace learning, and the four variables of job satisfaction. They were not included as part of this discussion.

These findings have a profound bearing on our understanding of workplace learning in small businesses. It also establishes strong linkages between workplace learning and job satisfaction in these same Malaysian small businesses. The summary of the relationships contained in Table 5 are key to this new understanding.

The coefficient of determination of the three types of learning as they relate to overall job satisfaction, allow us to predict that 24 percent of the overall job satisfaction these workers experienced is accounted for by Informal learning; that 17 percent is accounted for by Incidental learning; and that 17 percent of the variance is accounted for by Formal learning. While this acknowledges that other factors effect job satisfaction, no other known study has so directly tied a satisfied workforce to the learning that occurs within the work setting.

Table 5. Relationship Between Workplace Learning Measures and Job Satisfaction Measures

		Incidental	Informal	Formal
Alienation	r =	-.256**	-.201**	-.169*
	r^2 =	.07	.04	.03
Compensation	r =	.456**	.554**	.571**
	r^2 =	.21	.31	.33
Enjoyment	r =	.382**	.431**	.277**
	r^2 =	.15	.19	.08
Overall Job Sat	r =	.408**	.490**	.412**
	r^2 =	.17	.24	.17

**. Correlation is significant at the 0.01 level (2-tailed)

*. Correlation is significant at the 0.05 level (2-tailed)

This study also indicates that workplace learning has linkages to an employee's satisfaction with his or her perception of *compensation*. The coefficient of determination allow us to predict that 21 percent of the satisfaction with compensation is accounted for by Incidental learning; that 31 percent is accounted for by Informal learning; and 33 percent is accounted for by formal learning. This supports the belief that workplace learning positions one for advancements that lead to pay increases and recognition.

The mean-item means analysis indicates that of the three measures of workplace learning, incidental learning has the greater place among them. Again, this has significance as to where we place our time and money. Formal learning— the one that gets all the attention and money— has the lowest place of the three.

Conclusion and Discussion

Previously, conventional wisdom has held that SMEs in Malaysia, as well as most of the rest of the world, do little to develop the human resources in their organizations. This study does not support that thinking. The respondents in this study reported extensive incidents of formal, informal, and incidental learning in the workplace, with incidental learning having the greater place among them. In addition, the respondents also reported a feeling of overall job satisfaction with compensation, work enjoyment, and not feeling alienated a big part of their perception of satisfaction. Not only that, they attributed a large part of their job satisfaction to the availability of learning opportunities on the job.

These findings have some significant implications for theory and practice:

- No longer can there be denial that the development of human resources occurs in small businesses. Studies such as the ones by Des Reis (1993), Morse (1984), and *Training* (1998) that found an absence of HRD activities were conducted in the U.S., but indications are that this studies findings will hold up in other countries.
- There is now support for the findings made by Anonymous (1997) in U. S. small businesses that found workers generally had a higher level of job satisfaction than did workers in large enterprises.
- Workplace learning is now directly linked to employee job satisfaction. No known previous studies have undertaking the connection between the two variables. This can have huge implication as to where managers place their emphasis to ensure content workers.
- Informal learning has a significantly higher place in the learning network than does formal training. Incidental learning has an equal place as does formal learning. As Jacobs and Jones (1995), and Rothwell and Kazanas (1994) encourage, greater emphasis and financial support needs to be placed on on-the-job training as a learning tool in organizations.
- This study supports previous findings (Kovach, 1987) that being appreciated for one's work, feeling "in" on things, and enjoying the workplace and coworkers are a significant part of job satisfaction.

While this study clearly does not represent the entire global workplace, even so, these findings are significant for exploring the relationship between workplace learning and employee job satisfaction. It is the first known empirical study to establish the nature and extent of workplace learning in small businesses. It is also the first study to delineate the relationship between workplace learning and job satisfaction. A number of practical implications can be drawn that are of interest to HRD and managers in companies, small and large, in day-to-day operations. Additionally, it also establishes a new understanding for teachers of human resource development,

human resource management, and management. This material provides techniques to promote operational methods to help assure organizational success.

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